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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/935,661

08/24/2001

Kenji Oshima

2001\_1135A

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03/29/2005

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EXAMINER

SHOSHO, CALLIE E

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/935,661

Applicant(s)

OSHIMA, KENJI

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1 and 3-8 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

Re

### **DETAILED ACTION**

1. All outstanding rejections are overcome in light of applicant's response filed 3/9/05.

Upon updating the searches, two references came to the attention of the examiner, namely, Nakazawa et al. (U.S. 6,241,341) and Tsubuko et al. (U.S. 2004/0010075). In light of the new grounds of rejection as set forth below utilizing these references, finality of the previous office action has been withdrawn and thus, the following action is non-final.

### **Claim Rejections - 35 USC § 102**

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 3-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakazawa et al. (U.S. 6,241,341) taken in view of the evidence given in Shibata (U.S. 6,290,764).

Nakazawa et al. disclose electrostatic ink jet ink comprising aliphatic hydrocarbon solvent possessing specific electric resistance of  $10^9 \Omega\text{cm}$ , pigment, polymer soluble in the solvent wherein the polymer is obtained from  $\text{C}_{10}$ - $\text{C}_{22}$  alkyl (meth)acrylates, and salts of fatty acids having 6 to 24 C atoms such as naphthenic acid with metals. The aliphatic hydrocarbon

solvents are those known under the tradename Isoper G and Isoper L, which are well known, as evidenced by Shibata, to possess boiling point of 150-350 °C. There is also disclosed electrostatic ink jet recording apparatus comprising the ink and method wherein the above ingredients are mixed to form the ink (col.2, lines 43-45 and 55-65, col.6, lines 39-44 and 50-57, col.7, lines 32-40, col.9, lines 1-21, and col.10, lines 33-44).

Using the specification as a dictionary in order to define  $\zeta$  potential of the colorant, it is noted that page 14, lines 27-29 of the present specification discloses that it is the metal soap and the polymer that imparts  $\zeta$  potential to the colorant. Thus, given that Nakazawa et al. disclose ink comprising metal soap and polymer identical to those presently claimed, it is clear that the colorant of Nakazawa et al. will inherently possess  $\zeta$  potential as presently claimed.

In light of the above, it is clear that Nakazawa et al. anticipate the present claims.

4. Claims 1 and 3-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsubuko et al. (U.S. 2004/0010075) taken in view of the evidence given in Shibata (U.S. 6,290,764) and Takao et al. (U.S. 6,627,696).

Tsubuko et al. disclose electrostatic ink jet ink comprising aliphatic hydrocarbon solvent, resin obtained from alkyl (meth)acrylates such as butyl, hexyl, octyl, and decyl (meth)acrylates, pigment such as carbon black, and metal salt such as manganese naphthenate or manganese octylate. The aliphatic hydrocarbon solvents are those known under the tradename Isoper G and Isoper L, which are well known, as evidenced by Shibata, to possess boiling point of 150-350 °C. There is also disclosed electrostatic ink jet recording apparatus comprising the ink and method

wherein the above ingredients are mixed to form the ink (paragraphs 25-26, 40, 47, 50, 56, 88-89, 92, 160, and 163). Although there is no disclosure that the aliphatic hydrocarbon solvent possesses volume resistivity as presently claimed, it is well known, as evidenced by Takao et al. (col.2, lines 28-30), that aliphatic hydrocarbon solvents inherently possess resistivity of not less than  $10^9 \Omega\text{cm}$ .

Using the specification as a dictionary in order to define  $\zeta$  potential of the colorant, it is noted that page 14, lines 27-29 of the present specification discloses that it is the metal soap and the polymer that imparts  $\zeta$  potential to the colorant. Thus, given that Tsubuko et al. disclose ink comprising metal soap and polymer identical to those presently claimed, it is clear that the colorant of Tsubuko et al. will inherently possess  $\zeta$  potential as presently claimed.

In light of the above, it is clear that Tsubuko et al. anticipate the present claims.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
3/22/05